IN THE DRAWINGS

The attached sheet of drawings includes changes to Figure 1. This sheet replaces the original sheet of Figure 1. Applicants have added the label of "100" on Figure 1. Applicants have attached herewith an annotated sheet showing this change to Figure 1 as well as a replacement sheet for Figure 1.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

REMARKS

Claims 1-54 are pending. The Specification is objected to. Claims 1, 15, 29 and 43 are rejected under 35 U.S.C. §102(b). Claims 2-14, 16-28, 30-42 and 44-54 are rejected under 35 U.S.C. §103(a). Applicants respectfully traverse these rejections for at least the reasons stated below and respectfully request that the Examiner reconsider and withdraw these rejections.

Applicants have cancelled claims 1, 15, 29 and 43 without prejudice or disclaimer. Hence, claims 2-14, 16-28, 30-42 and 44-54 are pending. Applicants reserve the right to file a continuation application to capture the subject matter of originally filed claims 1, 15, 29 and 43.

Applicants have amended claims 2, 4, 5, 13, 14, 16, 18, 19, 27, 28, 30, 32, 33, 41, 42, 44, 46 and 47. Applicants note that claims 4, 5, 18, 19, 32, 33, 46 and 47 were not amended to overcome prior art but to be rewritten in independent form. Applicants further note that claims 2, 13, 14, 16, 27, 28, 30, 41, 42 and 44 were not amended to overcome prior art but to provide consistency with the cancellation of claims 1, 15, 29 and 43. Hence, no prosecution history estoppel arises from the amendment to claims 2, 4, 5, 13, 14, 16, 18, 19, 27, 28, 30, 32, 33, 41, 42, 44, 46 and 47. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 62 U.S.P.Q.2d 1705, 1711-12 (2002); 56 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2000). Further, the amendments made to claims 2, 4, 5, 13, 14, 16, 18, 19, 27, 28, 30, 32, 33, 41, 42, 44, 46 and 47 were not made for a substantial reason related to patentability and therefore no prosecution history estoppel arises from such amendments. *See Festo Corp.*, 62 U.S.P.Q.2d 1705 at 1707 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 41 U.S.P.Q.2d 1865, 1873 (1997).

Applicants would like to note that the reference that was not translated in English (Taguchi, T. "Sniffer Network Management System, Network General Co.," *Data Communication and Processing*, Vol. 23, No. 9, September 1991, pp. 53-57) was included in the IDS by mistake. Hence, the Examiner does not need a translated

copy of this reference as it is believed that the reference is not material in determining patentability of this application.

I. OBJECTIONS TO THE SPECIFICATION:

The Examiner has objected to the Specification for not including the label of "100" in Figure 1 as recited on page 10, line 20 and page 11, line 6 of the Specification. Paper No. 3, page 2. Applicants have amended Figure 1 to include the label of "100". Accordingly, Applicants respectfully request the Examiner to withdraw the objection to the Specification.

II. REJECTIONS UNDER 35 U.S.C. §102(b):

The Examiner has rejected claims 1, 15, 29 and 43 under 35 U.S.C. §102(b) as being anticipated by Gopal et al. (*Multicasting Groups Over Broadcast Channels, IEEE*, July 1994, pages 2423-2431) (hereinafter "Gopal"). Applicants respectfully note that claims 1, 15, 29 and 43 have been cancelled and hence the rejections to claims 1, 15, 29 and 43 are moot.

III. REJECTIONS UNDER 35 U.S.C. §103(a):

The Examiner has rejected claims 2, 16, 30 and 44 under 35 U.S.C. §103(a) as being unpatentable over Gopal in view of Kalkunte et al. (U.S. Publication No. 20030118016) (hereinafter "Kalkunte"). The Examiner has further rejected claims 3, 17, 31 and 45 under 35 U.S.C. §103(a) as being unpatentable over Gopal in view of Kalkunte in further view of Bennett et al. (U.S. Publication No. 20050021832) (hereinafter "Bennett"). The Examiner has further rejected claims 4-5, 9-14, 18, 19, 23-28, 32, 33, 37-42, 46, 47 and 51-54 under 35 U.S.C. §103(a) as being unpatentable over Gopal in view of (*Point-to-Multipoint Communication Over Broadcast Links, IEEE*, September 1984, pages 1034-1044) (hereinafter "Gopal'84"). The Examiner has further rejected claims 6, 7, 20, 21, 34, 35, 48 and 49 under 35 U.S.C. §103(a) as being unpatentable over Gopal in view of Gopal'84 and in further view of Kawan et al. (U.S. Patent No. 5,572,572) (hereinafter "Kawan"). The Examiner has further rejected claims 8, 22, 36 and 50 under 35 U.S.C. §103(a) as being unpatentable over

Gopal in view of Gopal'84 and in further view of Bennett. Applicants respond as follows.

A. Claims 4-5, 6, 9-14, 18, 19, 20, 23-28, 32, 33, 34, 37-42, 46, 47, 48 and 51-54 are patentable over Gopal in view of Gopal'84 as the Examiner has not provided any source of motivation.

A *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

The Examiner admits that Gopal does not teach saving a copy of a transmitted frame, as recited in claim 4 and similarly in claims 18, 32 and 46. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the throughput and operational speed of a network involved in forwarding different types of data including multicast frames." Paper No. 3, pages 5-6.

The Examiner further admits that Gopal does not teach receiving an acknowledgment from a particular destination node of two or more destination nodes, as recited in claim 5 and similarly in claims 19, 33 and 47. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 6.

The Examiner further admits that Gopal does not teach identifying the particular destination node; identifying a frame associated with the acknowledgment; reading a data structure associated with the frame associated with the acknowledgment; and indicating in an entry in the data structure associated with the particular destination node that a frame associated with the acknowledgment from the particular destination node has been received, as recited in claim 9 and similarly in claims 23, 37 and 51. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 7.

The Examiner further admits that Gopal does not teach determining if there are outstanding responses for the frame associated with the acknowledgment, as recited in claim 10 and similarly in claims 24, 38 and 52. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 8.

The Examiner further admits that Gopal does not teach waiting to receive an additional acknowledgment if there are outstanding responses for the frame associated with the acknowledgment, as recited in claim 11 and similarly in claims 25, 39 and 53. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 9.

The Examiner further admits that Gopal does not teach releasing memory associated with the frame associated with the acknowledgment if there are no outstanding responses for the frame, as recited in claim 12 and similarly in claims 26, 40 and 54. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network

involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 9.

The Examiner further admits that Gopal does not teach receiving a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes, as recited in claim 13 and similarly in claims 27 and 41. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 10.

The Examiner further admits that Gopal does not teach where the frame is a multicast frame, as recited in claim 14 and similarly in claims 28 and 42. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 10.

The Examiner further admits that Gopal does not teach identifying a particular destination node; identifying a frame associated with the acknowledgment; and reading a data structure associated with the particular destination node, as recited in claim 6 and similarly in claims 8, 20, 22, 34, 36, 48 and 50. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, pages 11 and 15.

The Examiner further admits that Gopal does not teach indicating in an entry in the data structure associated with the particular destination that a frame associated with the acknowledgment from the particular destination node has been received, as recited in claim 8 and similarly in claims 22, 36 and 50. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to

"increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 15.

In order to establish a *prima facie* case of obviousness, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 1994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). The Examiner has not provided any evidence that his motivation comes from any of these sources. Applicants respectfully request the Examiner to particularly point out from which of these sources his motivation comes from. The Examiner appears to be relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 4-5, 6, 8, 9-14, 18, 19, 20, 22, 23-28, 32, 33, 34, 36, 37-42, 46, 47, 48, 50 and 51-54. *Id.*

B. The Examiner has not provided any objective evidence or appropriate motivation for modifying Gopal with Gopal'84.

Referring to Section A, the Examiner's motivation for modifying Gopal with Gopal'84 to save a copy of a transmitted frame, as recited in claim 4 and similarly in claims 18, 32 and 46, is to "increase[ing] the throughput and operational speed of a network involved in forwarding different types of data including multicast frames." Paper No. 3, pages 5-6. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the throughput and operational speed of a network involved in forwarding different types of data including multicast frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter

to the "active" destinations only, to save a copy of a transmitted frame, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to save a copy of a transmitted frame for the purpose of increasing the throughput and operational speed of a network involved in forwarding different types of data including multicast frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to save a copy of a transmitted frame in order to increase the throughput and operational speed of a network involved in forwarding different types of data including multicast frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 4, 18, 32 and 46. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to receive an acknowledgment from a particular destination node of two or more destination nodes, as recited in claim 5 and similarly in claims 19, 33 and 47, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 6. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive an acknowledgment from a particular destination node of two or more destination

nodes (missing limitation of claim 5), in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive an acknowledgment from a particular destination node of two or more destination nodes for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive an acknowledgment from a particular destination node of two or more destination nodes in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 5, 19, 33 and 47. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to identify the particular destination node; identify a frame associated with the acknowledgment; read a data structure associated with the frame associated with the acknowledgment; and indicate in an entry in the data structure associated with the particular destination node that a frame associated with the acknowledgment from the particular destination node has been received, as recited in claim 9 and similarly in claims 23, 37 and 51, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 7. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in

forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to include the limitations of claim 9, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to include the limitations of claim 9 for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to include the limitations of claim 9 in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 9, 23, 37 and 51. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to determine if there are outstanding responses for the frame associated with the acknowledgment, as recited in claim 10 and similarly in claims 24, 38 and 52, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 8. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error

free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to determine if there are outstanding responses for the frame associated with the acknowledgment, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to determine if there are outstanding responses for the frame associated with the acknowledgment for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to determine if there are outstanding responses for the frame associated with the acknowledgment in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 10, 24, 38 and 52. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to wait to receive an additional acknowledgment if there are outstanding responses for the frame associated with the acknowledgment, as recited in claim 11 and similarly in claims 25, 39 and 53, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 9. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to

increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to wait to receive an additional acknowledgment if there are outstanding responses for the frame associated with the acknowledgment, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to wait to receive an additional acknowledgment if there are outstanding responses for the frame associated with the acknowledgment for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to wait to receive an additional acknowledgment if there are outstanding responses for the frame associated with the acknowledgment in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 11, 25, 39 and 53. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to release memory associated with the frame associated with the acknowledgment if there are no outstanding responses for the frame, as recited in claim 12 and similarly in claims 26, 40 and 54, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 9. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active"

destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to release memory associated with the frame associated with the acknowledgment if there are no outstanding responses for the frame, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to release memory associated with the frame associated with the acknowledgment if there are no outstanding responses for the frame for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to release memory associated with the frame associated with the acknowledgment if there are no outstanding responses for the frame in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 12, 26, 40 and 54. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes, as recited in claim 13 and similarly in claims 27 and

41, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 10. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames?

Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 12, 26, 40 and 54. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and to retransmit the frame to the particular destination node of two or more destination nodes, as recited in claim 13 and similarly in claims 27 and 41, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 10. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would

one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to receive a request to retransmit the frame from a particular destination node of two or more destination nodes; and retransmitting the frame to the particular destination node of two or more destination nodes in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 13, 27 and 41. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to identify a particular destination node; identify a frame associated with the acknowledgment; and read a data structure associated with the particular destination node, as recited in claim 6 and similarly in claims 8, 20, 22, 34, 36, 48 and 50, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, pages 11 and 15. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to identify a particular destination node; identify a frame associated with the acknowledgment; and read a data structure associated with the particular destination node, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by

a transmitter to the "active" destinations only, to identify a particular destination node; identify a frame associated with the acknowledgment; and read a data structure associated with the particular destination node for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to identify a particular destination node; identify a frame associated with the acknowledgment; and read a data structure associated with the particular destination node in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 6, 8, 20, 22, 34, 36, 48 and 50. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

The Examiner's motivation modifying Gopal with Gopal'84 to indicate in an entry in the data structure associated with the particular destination that a frame associated with the acknowledgment from the particular destination node has been received, as recited in claim 8 and similarly in claims 22, 36 and 50, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 15. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Gopal'84 teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to indicate in an entry in the data structure associated with the particular destination that a frame associated with the acknowledgment from the particular destination node has been

received, in light of Gopal '84, which teaches a study on link control protocols (three different protocols) for use in point-multipoint communication over broadcast links. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to indicate in an entry in the data structure associated with the particular destination that a frame associated with the acknowledgment from the particular destination node has been received for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to indicate in an entry in the data structure associated with the particular destination that a frame associated with the acknowledgment from the particular destination node has been received in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 8, 22, 36 and 50. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

C. Gopal and Gopal'84 do not teach or suggest the following claim limitations.

Applicants respectfully assert that Gopal and Gopal'84, taken singly or in combination, do not teach or suggest "identifying said particular destination node; identifying a frame associated with said acknowledgment; reading a data structure associated with said frame associated with said acknowledgment; and indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received" as recited in claim 9 and similarly in claims 23, 37 and 51. The Examiner cites Figure 5 and section 3 on page 1036 of Gopal '84 as teaching the above-cited claim limitation. Paper No. 3, page 7. Applicants respectfully traverse and assert that Gopal'84 instead teaches that the "full memory go-back-n" protocol

updates the ack_outstanding list different from the previously two protocols. Section 3, page 1036. Gopal'84 further teaches that upon receipt of an acknowledgment for a message from a receiver, that receiver is only removed from the ack_outstanding list if it is not on the ack_outstanding list of any previous message. Section 3, page 1036. Gopal'84 further teaches that this extra check ensures that the messages arrive in sequence at the receivers. Section 3, page 1036. Gopal'84 further teaches that it is made necessary by the fact that the receivers generate acknowledgments for certain messages that are subsequently discarded. Section 3, page 1036. Gopal'84 further teaches that as in the previous two protocols, when the time-out counter for a message expires, the transmitter goes back and retransmits the unsuccessful message and all messages subsequent to it. Section 3, page 1036.

There is no language in the cited passage that teaches identifying a particular destination node. Neither is there any language in the cited passage that teaches identifying a frame associated with an acknowledgment. Neither is there any language in the cited passage that teaches reading a data structure associated with the frame associated with the acknowledgment. Neither is there any language in the cited passage that teaches indicating in an entry in the data structure associated with the particular destination node that a frame associated with the acknowledgment from the particular destination node has been received. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 9, 23, 37 and 51, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Applicants further assert that Gopal and Gopal'84, taken singly or in combination, do not teach or suggest "wherein if there are no outstanding responses for said frame then the method further comprises the step of: releasing memory associated with said frame associated with said acknowledgment" as recited in claim 12 and similarly in claims 26, 40 and 54. The Examiner cites Figure 5 and the 2nd paragraph of Section C in Gopal '84 as teaching the above-cited claim limitation. Paper No. 3, page 9. Applicants respectfully traverse and assert that Gopal'84 instead teaches that the added complexity is caused by the difference in the way the protocols

update and maintain the ack_outstanding list and is not significant. 2nd Paragraph of Section C. Gopal'84 further teaches that the worst-case message buffering requirements at the transmitter are equal for all three protocols, the size of the buffering being determined by the maximum number of messages that can be transmitted in the time that it takes for the time-out counter of a particular message to expire. 2nd Paragraph of Section C.

There is no language in the cited passage that teaches releasing memory associated with a frame associated with an acknowledgment. Neither is there any language in the cited passage that teaches releasing memory associated with a frame associated with an acknowledgment if there are no outstanding responses for the frame. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 12, 26, 40 and 54, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Furthermore, the Examiner appears to be asserting that Gopal'84 inherently teaches the above-cited claim limitation. Paper No. 3, page 9. Applicants respectfully traverse and assert that the Examiner must provide a basis in fact and/or technical reasoning to support the assertion that Gopal'84 inherently teaches releasing memory associated with a frame associated with an acknowledgment if there are no outstanding responses for the frame. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must make clear that Gopal'84 inherently teaches releasing memory associated with a frame associated with an acknowledgment if there are no outstanding responses for the frame, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherency, however, may not be established by probabilities or possibilities. *Id.* The mere fact that a certain thing may resolve from a given set of circumstances is not sufficient. *Id.* Therefore, the Examiner must support the inherency argument with objective evidence meeting the above requirements. Since the Examiner has not provided such evidence, the Examiner has not presented a

prima facie case of obviousness for rejecting claims 12, 26, 40 and 54. M.P.E.P. §2143.

Applicants further assert that Gopal and Gopal'84, taken singly or in combination, do not teach or suggest "receiving a request to retransmit said frame from a particular destination node of said two or more destination nodes; and retransmitting said frame to said particular destination node of said two or more destination nodes" as recited in claim 13 and similarly in claims 27 and 41. The Examiner states that:

> The lack of sending an Ack message by the receiver can be interpreted as a request for re-transmit. All frames in Gopal'84's system are multicast frames. Paper No. 3, page 10.

Applicants respectfully traverse the assertion that Gopal'84 teaches the lack of sending an Ack message which necessarily is interpreted as a request to retransmit the Ack message. Further, the above-cited claim limitations do not recite "request to retransmit the Ack message." Instead, the above-cited claim limitations recite "receiving a request to retransmit said frame." The Examiner has not identified any step or passage in Gopal'84 as teaching receiving a request to retransmit a frame. Neither has the Examiner identified any step or passage in Gopal'84 as teaching receiving a request to retransmit a frame from a destination node. Neither has the Examiner identified any step or passage in Gopal'84 as teaching retransmitting the frame to the particular destination node. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 13, 27 and 41, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Furthermore, the Examiner appears to be asserting that Gopal'84 inherently teaches the above-cited claim limitations. Paper No. 3, page 10. Applicants respectfully traverse and assert that the Examiner must provide a basis in fact and/or technical reasoning to support the assertion that Gopal'84 inherently teaches the above-cited claim limitations. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must make clear that Gopal'84 inherently

teaches the above-cited claim limitations, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherency, however, may not be established by probabilities or possibilities. *Id.* The mere fact that a certain thing may resolve from a given set of circumstances is not sufficient. *Id.* Therefore, the Examiner must support the inherency argument with objective evidence meeting the above requirements. Since the Examiner has not provided such evidence, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 13, 27 and 41. M.P.E.P. §2143.

D. Claims 6, 20, 34 and 48 are patentable over Gopal in view of Gopal'84 and in further view of Kawan as the Examiner has not provided any source of motivation.

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

The Examiner admits that Gopal and Gopal'84 do not teach determining if a sequence number associated with the acknowledgment is greater than an expected sequence number, as recited in claim 6 and similarly in claims 20, 34 and 48. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 11.

The Examiner further admits that Gopal and Gopal'84 do not teach detecting a lost acknowledgment if the sequence number associated with the acknowledgment is

greater than the expected sequence number, as recited in claim 7 and similarly in claims 21, 35 and 49. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 12.

In order to establish a *prima facie* case of obviousness, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 1994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). The Examiner has not provided any evidence that his motivation comes from any of these sources. Applicants respectfully request the Examiner to particularly point out from which of these sources his motivation comes from. The Examiner appears to be relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 6, 7, 20, 21, 34, 35, 48 and 49. *Id.*

E. The Examiner has not provided any objective evidence or appropriate motivation for modifying Gopal and Gopal'84 with Kawan.

Referring to Section D, the Examiner's motivation for modifying Gopal and Gopal'84 with Kawan to determine if a sequence number associated with the acknowledgment is greater than an expected sequence number, as recited in claim 6 and similarly in claims 20, 34 and 48, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 11. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Kawan teaches a telephone-computer configured as a programmable microcomputer which operates in most circumstances through a standard telephone 12-key keypad input. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in

forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to determine if a sequence number associated with the acknowledgment is greater than an expected sequence number, in light of Kawan, which teaches a telephone-computer configured as a programmable microcomputer which operates in most circumstances through a standard telephone 12-key keypad input. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to determine if a sequence number associated with the acknowledgment is greater than an expected sequence number for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to determine if a sequence number associated with the acknowledgment is greater than an expected sequence number in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 6, 20, 34 and 48. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

Furthermore, the Examiner's motivation for modifying Gopal and Gopal'84 with Kawan to detect a lost acknowledgment if the sequence number associated with the acknowledgment is greater than the expected sequence number, as recited in claim 7 and similarly in claims 21, 35 and 49, is to "increase[ing] the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames." Paper No. 3, page 12. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. Kawan teaches a

telephone-computer configured as a programmable microcomputer which operates in most circumstances through a standard telephone 12-key keypad input. Abstract. The Examiner's motivation ("to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to detect a lost acknowledgment if the sequence number associated with the acknowledgment is greater than the expected sequence number, in light of Kawan, which teaches a telephone-computer configured as a programmable microcomputer which operates in most circumstances through a standard telephone 12-key keypad input. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to detect a lost acknowledgment if the sequence number associated with the acknowledgment is greater than the expected sequence number for the purpose of increasing the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames. In other words, why would one of ordinary skill in the art modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to detect a lost acknowledgment if the sequence number associated with the acknowledgment is greater than the expected sequence number in order to increase the reliability of a network involved in forwarding different types of data including multicast frames by guaranteeing error free in sequence delivery of frames? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 7, 21, 35 and 49. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

F. Gopal, Gopal'84 and Kawan, taken singly or in combination, do not teach or suggest the following claim limitations.

Applicants respectfully assert that Gopal, Gopal'84 and Kawan, taken singly or in combination, do not teach or suggest "identifying said particular destination

node; identifying a frame associated with said acknowledgment; reading a data structure associated with said frame associated with said acknowledgment" as recited in claim 6 and similarly in claims 20, 34 and 48. The Examiner cites Figure 5 of Gopal '84 as teaching the above-cited claim limitation. Paper No. 3, page 11. Applicants respectfully traverse and assert that Gopal'84 instead teaches that the "full memory go-back-n" protocol updates the ack_outstanding list different from the previously two protocols. Section 3, page 1036. Gopal'84 further teaches that upon receipt of an acknowledgment for a message from a receiver, that receiver is only removed from the ack_outstanding list if it is not on the ack_outstanding list of any previous message. Section 3, page 1036. Gopal'84 further teaches that this extra check ensures that the messages arrive in sequence at the receivers. Section 3, page 1036. Gopal'84 further teaches that it is made necessary by the fact that the receivers generate acknowledgments for certain messages that are subsequently discarded. Section 3, page 1036. Gopal'84 further teaches that as in the previous two protocols, when the time-out counter for a message expires, the transmitter goes back and retransmits the unsuccessful message and all messages subsequent to it. Section 3, page 1036.

There is no language in the cited passage that teaches identifying a particular destination node. Neither is there any language in the cited passage that teaches identifying a frame associated with an acknowledgment. Neither is there any language in the cited passage that teaches reading a data structure associated with the frame associated with the acknowledgment. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 6, 20, 34 and 48, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Furthermore, if the Examiner is asserting that Gopal'84 inherently teaches reading a data structure associated with a particular destination node (Paper No. 3, page 11), then Applicants respectfully traverse and assert that the Examiner must provide a basis in fact and/or technical reasoning to support the assertion that Gopal'84 inherently teaches reading a data structure associated with a particular

destination node. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must make clear that Gopal'84 inherently teaches reading a data structure associated with a particular destination node, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherency, however, may not be established by probabilities or possibilities. *Id.* The mere fact that a certain thing may resolve from a given set of circumstances is not sufficient. *Id.* Therefore, the Examiner must support the inherency argument with objective evidence meeting the above requirements. Since the Examiner has not provided such evidence, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 20, 34 and 48. M.P.E.P. §2143.

Applicants further assert that Gopal, Gopal'84 and Kawan, taken singly or in combination, do not teach or suggest "determining if a sequence number associated with said acknowledgment is greater than an expected sequence number" as recited in claim 6 and similarly in claims 20, 34 and 48. The Examiner cites column 21, lines 7-21 of Kawan as teaching the above-cited claim limitation. Paper No. 3, page 12. Applicants respectfully traverse and assert that Kawan instead teaches that if the transmitting device has stored one or more messages which higher sequence numbers than the last received acknowledgment number, those messages with a greater sequence number are retransmitted. Column 21, lines 11-14. Kawan further teaches that when an acknowledgment number is received, all stored messages having sequence numbers less than or equal to the last received acknowledgment are discarded. Column 21, lines 14-17. Hence, Kawan does not teach determining if a sequence number associated with an acknowledgment is greater than an expected sequence number. Instead, Kawan simply teaches performing one of two tasks (discarding or retransmitting messages) based on the received sequence number. Kawan does not teach determining whether the received sequence number is a particular sequence number as expected. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 6, 20, 34 and 48, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Applicants further assert that Gopal, Gopal'84 and Kawan, taken singly or in combination, do not teach or suggest "wherein if said sequence number associated with said acknowledgment is greater than said expected sequence number then the method further comprises the step of: detecting a lost acknowledgment" as recited in claim 7 and similarly in claims 21, 35 and 49. The Examiner cites column 21, lines 7-21 of Kawan as teaching the above-cited claim limitation. Paper No. 3, page 13. Applicants respectfully traverse and assert that Kawan instead teaches that if the transmitting device has stored one or more messages which higher sequence numbers than the last received acknowledgment number, those messages with a greater sequence number are retransmitted. Column 21, lines 11-14. Kawan further teaches that when an acknowledgment number is received, all stored messages having sequence numbers less than or equal to the last received acknowledgment are discarded. Column 21, lines 14-17. Hence, Kawan does not teach detecting a lost acknowledgment if the sequence number associated with the acknowledgment is greater than the expected sequence number. Instead, Kawan simply teaches performing one of two tasks (discarding or retransmitting messages) based on the received sequence number. Kawan does not teach determining whether the received sequence number is a particular sequence number as expected. Hence, Kawan does not teach detecting a lost acknowledgment if the sequence number associated with the acknowledgment is greater than the expected sequence number. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 7, 21, 35 and 49, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

G. Claims 6, 20, 34 and 48 are patentable over Gopal in view of Gopal'84 and in further view of Bennett as the Examiner has not provided any source of motivation.

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and

particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

The Examiner admits that Gopal and Gopal'84 do not teach identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in the data structure associated with the particular destination node as having been received, as recited in claim 8 and similarly in claims 22, 36 and 50. The Examiner's motivation for modifying Gopal with Gopal'84 to include the above-cited claim limitation is to "increase[ing] the throughput by minimizing the idle time of the communication link in decreasing the amount of acknowledgment messages sent over the link." Paper No. 3, page 15.

In order to establish a *prima facie* case of obviousness, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 1994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). The Examiner has not provided any evidence that his motivation comes from any of these sources. Applicants respectfully request the Examiner to particularly point out from which of these sources his motivation comes from. The Examiner appears to be relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 8, 22, 36 and 50. *Id.*

H. The Examiner has not provided any objective evidence or appropriate motivation for modifying Gopal and Gopal'84 with Bennett.

Referring to Section G, the Examiner's motivation for modifying Gopal and Gopal'84 with Bennett to identify a previous entry associated with a frame transmitted with an implicit acknowledgment in the data structure associated with the

particular destination node as having been received, as recited in claim 8 and similarly in claims 22, 36 and 50, is to "increase[ing] the throughput by minimizing the idle time of the communication link in decreasing the amount of acknowledgment messages sent over the link." Paper No. 3, page 15. Gopal addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only. Page 2424, second paragraph. The Examiner's motivation ("to increase the throughput by minimizing the idle time of the communication link in decreasing the amount of acknowledgment messages sent over the link ") does not address as to why one of ordinary skill in the art would modify Gopal, which addresses the problem of restricting the state information maintained by a transmitter to the "active" destinations only, to identify a previous entry associated with a frame transmitted with an implicit acknowledgment in the data structure associated with the particular destination node as having been received. That is, the Examiner has not provided any objective evidence of there being a connection between modifying Gopal to identify a previous entry associated with a frame transmitted with an implicit acknowledgment in the data structure associated with the particular destination node as having been received for the purpose of increasing the throughput by minimizing the idle time of the communication link in decreasing the amount of acknowledgment messages sent over the link. In other words, why would one of ordinary skill in the art modify Gopal to identify a previous entry associated with a frame transmitted with an implicit acknowledgment in the data structure associated with the particular destination node as having been received in order to increase the throughput by minimizing the idle time of the communication link in decreasing the amount of acknowledgment messages sent over the link? Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 8, 22, 36 and 50. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

I. Gopal, Gopal'84 and Bennett, taken singly or in combination, do not teach or suggest the following claim limitations.

Applicants respectfully assert that Gopal, Gopal'84 and Bennett, taken singly or in combination, do not teach or suggest "identifying said particular destination

node; identifying a frame associated with said acknowledgment; reading a data structure associated with said frame associated with said acknowledgment; indicating in an entry in said data structure associated with said particular destination node that a frame associated with said acknowledgment from said particular destination node has been received" as recited in claim 8 and similarly in claims 22, 36 and 50. The Examiner cites Figure 5 and section 3 on page 1036 of Gopal '84 as teaching the above-cited claim limitation. Paper No. 3, page 14. Applicants respectfully traverse and assert that Gopal'84 instead teaches that the "full memory go-back-n" protocol updates the ack_outstanding list different from the previously two protocols. Section 3, page 1036. Gopal'84 further teaches that upon receipt of an acknowledgment for a message from a receiver, that receiver is only removed from the ack_outstanding list if it is not on the ack_outstanding list of any previous message. Section 3, page 1036. Gopal'84 further teaches that this extra check ensures that the messages arrive in sequence at the receivers. Section 3, page 1036. Gopal'84 further teaches that it is made necessary by the fact that the receivers generate acknowledgments for certain messages that are subsequently discarded. Section 3, page 1036. Gopal'84 further teaches that as in the previous two protocols, when the time-out counter for a message expires, the transmitter goes back and retransmits the unsuccessful message and all messages subsequent to it. Section 3, page 1036.

There is no language in the cited passage that teaches identifying a particular destination node. Neither is there any language in the cited passage that teaches identifying a frame associated with an acknowledgment. Neither is there any language in the cited passage that teaches reading a data structure associated with the frame associated with the acknowledgment. Neither is there any language in the cited passage that teaches indicating in an entry in the data structure associated with the particular destination node that a frame associated with the acknowledgment from the particular destination node has been received. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 8, 22, 36 and 50, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Furthermore, if the Examiner is asserting that Gopal'84 inherently teaches reading a data structure associated with a particular destination node (Paper No. 3, page 14), then Applicants respectfully traverse and assert that the Examiner must provide a basis in fact and/or technical reasoning to support the assertion that Gopal'84 inherently teaches reading a data structure associated with a particular destination node. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must make clear that Gopal'84 inherently teaches reading a data structure associated with a particular destination node, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherency, however, may not be established by probabilities or possibilities. *Id.* The mere fact that a certain thing may resolve from a given set of circumstances is not sufficient. *Id.* Therefore, the Examiner must support the inherency argument with objective evidence meeting the above requirements. Since the Examiner has not provided such evidence, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8, 22, 36 and 50. M.P.E.P. §2143.

Furthermore, if the Examiner is asserting that Gopal'84 inherently teaches indicating in an entry in the data structure associated with the particular destination node that a frame associated with the acknowledgment from the particular destination node has been received (Paper No. 3, page 14), then Applicants respectfully traverse and assert that the Examiner must provide a basis in fact and/or technical reasoning to support the assertion that Gopal'84 inherently teaches indicating in an entry in the data structure associated with the particular destination node that a frame associated with the acknowledgment from the particular destination node has been received. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must make clear that Gopal'84 inherently teaches indicating in an entry in the data structure associated with the particular destination node that a frame associated with the acknowledgment from the particular destination node has been received, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherency, however, may not be established by probabilities or possibilities. *Id.* The mere fact that a certain thing

may resolve from a given set of circumstances is not sufficient. *Id.* Therefore, the Examiner must support the inherency argument with objective evidence meeting the above requirements. Since the Examiner has not provided such evidence, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8, 22, 36 and 50. M.P.E.P. §2143.

Applicants further assert that Gopal, Gopal'84 and Bennett, taken singly or in combination, do not teach or suggest "identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in said data structure with said particular destination node as having been received" as recited in claim 8 and similarly in claims 22, 36 and 50. The Examiner cites Figure 5 and paragraphs 10, 47 and 60 of Bennett as teaching the above-cited claim limitation. Paper No. 3, page 15. Applicants respectfully traverse.

Bennett instead teaches that transmitted messages are temporarily stored as unacknowledged messages in a retransmission queue until the transmitted messages are acknowledged or until a time-out period associated with each of the messages has lapsed. [0010]. Bennett further teaches that to further improve the efficient use of the slow communication link, the data portion may include multiple pieces of information that may be associated with a plurality of controllers, devices, etc., which tends to maximize throughput in view of the fixed overhead associated with the IP portion and the header portion. [0047]. Bennett further teaches that because the underlying deferred acknowledgment communication protocol provides express and implicit acknowledgments for all message bundles, including message bundles containing alarm information such as the message bundles provided by an alarm server process, additional acknowledgments at the alarm management application level can be eliminated. [0069].

There is no language in the cited passages that teaches identifying a previous entry associated with a frame transmitted with an implicit acknowledgment. Neither is there any language in the cited passages that teaches identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in the data structure with a particular destination node. Neither is there any language in the

cited passages that teaches identifying a previous entry associated with a frame transmitted with an implicit acknowledgment in the data structure with a particular destination node as having been received. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 8, 22, 36 and 50, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

J. Claims 2, 16, 30 and 44 are patentable.

Claims 2, 16, 30 and 44 depend from claims 4, 18, 32 and 46, and hence are patentable over Gopal in view of Kalkunte for at least the reasons that claims 4, 18, 32 and 46 are patentable as stated above.

K. Claims 3, 17, 31 and 45 are patentable.

Claims 3, 17, 31 and 45 depend from claims 2, 16, 31 and 45, and hence are patentable over Gopal in view of Kalkunte in further view of Bennett for at least the reasons that claims 2, 16, 31 and 45 are patentable as stated above.

IV. CONCLUSION:

As a result of the foregoing, it is asserted by Applicants that claims 2-14, 16-28, 30-42 and 44-54 in the Application are in condition for allowance, and Applicants respectfully request an allowance of such claims. Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining issues.

Respectfully submitted,

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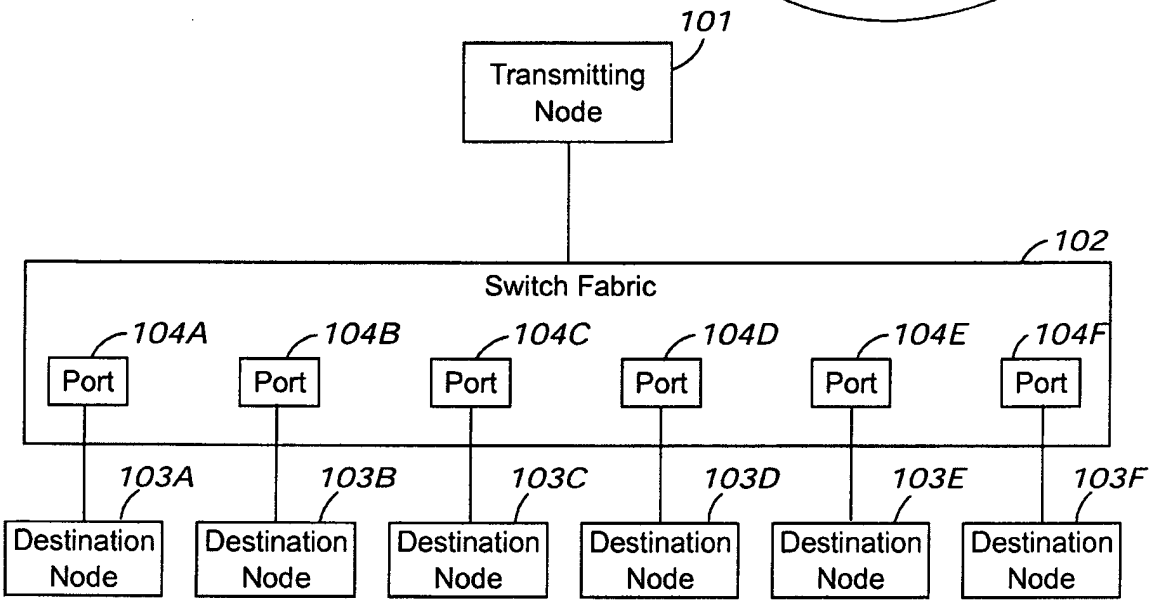
FIG. 1